Centers for Disease Control and Prevention

2014 Annual Sustainability Report

A Note from CDC's Chief Sustainability Officer

Sustainability Colleagues,

On behalf of the Office of Safety, Security and Asset Management (OSSAM) and the Quality and Sustainability Office, I would like to thank all of CDC's leadership and personnel for their support of our agency's sustainability initiatives during 2014.

Since our office's creation in 2008, we have worked in partnership with many offices and individuals across CDC to gain traction within the realm of environmental responsibility and to further embed sustainability tenets within the structure of our organization. These efforts have yielded some incredible results, particularly within the past year, that will help CDC to conserve both environmental and financial resources that help us to protect the health of our people and our planet, in line with CDC's mission of global public health promotion and disease prevention. In 2014, we achieved several major, lasting accomplishments in various HHS Strategic Sustainability Implementation Plan (HHS SSPP) goal sectors, notably in relation to Water Use Efficiency and Management (Goal 4) and Pollution Prevention and Waste Diversion (Goal 5) that have created lasting efficiencies and will allow CDC to not only maintain compliance with Federal sustainability mandates and guidelines, but will also help us to operate our facilities and our offices more resourcefully.

For our sustainability successes, we continued to be recognized in 2014 as a green leader within the Federal government, receiving awards and recognition from HHS, and also garnering the attention of CDC leadership through visible initiatives, large-scale projects and agency-wide events.

Within this report, we have detailed these successes as well as other significant progress towards our sustainability goals and mandates, all achieved through the hard work of our sustainability Goal Managers, through the continued support of our leadership, and through the participation of all CDC employees in our initiatives. I hope that you look through these pages with a sense of pride, as I do, at all we have accomplished this year, and that you will share in my excitement as we maintain this positive momentum in the coming years and further embed sustainability within our culture of health.

Thank you again for your support of sustainability within the Federal Government. I look forward to seeing what we can achieve together in 2015 as we further commit ourselves to creating efficiencies and promoting sustainability within our offices, within our agency, and as a sustainable leader within our government.

Sincerely,

Liz York, A.I.A., LEED AP, CNU-A
Chief Sustainability Officer
Associate Director of Quality and Sustainability
Centers for Disease Control and Prevention

Sustainability Goals and Governing Documents

Federal Mandates, Executive Orders, Sustainability Plans

HHS STRATEGIC SUSTAINABILITY PERFORMANCE PLAN (HHS SSPP)

In leading the initiative for a greener federal government, the Council for Environmental Quality (CEQ) has called upon agencies to submit annual plans for embracing sustainability and meeting federal sustainability mandates. HHS was one of 52 agencies to submit a Strategic Sustainability Performance Plan (SSPP) in response to the initial request in 2010, and the Department has provided yearly updates to the strategy each year, with input from all Operating Divisions (OPDIVs). The HHS SSPP outlines goals and milestones for integrating sustainability into Department operations and is revised each year to reflect current federal goals and priorities. With the 2014 iteration of the HHS SSPP came the addition of a new goal, Goal 10 (Energy Performance Contracts), which requires each HHS OPDIV to make a financial commitment towards Utility Energy Service Contracts (UESCs) or Energy Savings Performance Contracts (ESPCs) that will increase energy-efficiencies or the amount of on-site renewables. Each OPDIV will enter into one or more contracts with a local utility that will allow for the completion of large-scale projects to be paid back over several years.

For a complete copy of the current HHS SSPP, visit the HHS Go Green Intranet page.

HHS and the Office of the Federal Environmental Executive (OFEE) have established the following goal areas:

Goal 1 Scope 1, 2 and 3 Greenhouse Gas Reduction Agency-Comprehensive Greenhouse Gas Inventory

Goal 2 High-Performance Sustainable Design, Green Buildings & Regional and Local Planning

Goal 3 Fleet Management

Goal 4 Water Use Efficiency and Management

Goal 5 Pollution Prevention and Waste Reduction

Goal 6 Sustainable Acquisition

Goal 7 Electronic Stewardship and Data Centers

Goal 8 Renewable Energy

Goal 9 Climate Change Resilience

Goal 10 Energy Performance Contracts

CDC SUSTAINABILITY IMPLEMENTATION PLAN (CDC SIP)

In support of the SSPP, each HHS OPDIV, including CDC, has created a Sustainability Implementation Plan (SIP) that outlines specific strategies that will be employed to achieve federal sustainability goals. CDC's SIP allows agency Goal Managers, the individuals responsible for the tracking and implementation of sustainability strategies, to keep an organized record of which projects in their goal area are underway. The plan also lists major accomplishments for the previous year, acknowledging the positive impacts on the Agency from a fiscal and an environmental standpoint.

The FY2014 CDC SIP can be found on CDC's sustainability Intranet pages.

MEETING FEDERAL REGULATIONS - EXECUTIVE ORDERS

Executive Order 13423 requires federal agencies to conduct environmental, transportation and energy-related activities in support of their respective missions in an environmentally, economically and fiscally sound manner. The Quality and Sustainability Office, formerly the Office of Sustainability, coordinates and monitors functions related to executive mandates.

Executive Order 13514 requires federal agencies to meet a number of energy, water and waste reduction targets, including:

- 30% reduction in vehicle fleet petroleum use by 2020
- 26% improvement in water efficiency by 2020
- 50% recycling and waste diversion by 2015
- 95% of all applicable contracts to meet sustainability requirements

Executive Order 13653 created an interagency Climate Preparedness and Resilience Council, on which HHS will serve, and also requires Federal agencies to create comprehensive Climate Change Resilience action plans, taking into account the potential effects of climate change on facilities, policies and agency missions.

Sustainability Goals and Governing Documents

Federal Mandates, Executive Orders, Sustainability Plans

MEETING FEDERAL REGULATIONS - POLICY ACTS

Energy Independence & Security Act of 2007 and Energy Policy Act of 2005 require:

- Energy efficiency and metering requirements for buildings
- Energy savings performance contracts
- Energy efficient product procurement
- Reducing petroleum/increasing alternative fuel use

CLIMATE CHANGE REGULATIONS

In 2014, HHS released the second iteration of its official Climate Adaptation Plan, outlining the Department's commitment to assessing the risks of climate change on its facilities and populations. The plan describes current and future planned activities in support of climate change adaptation and also details the potential impacts of climate change on human health in various regions of the country.

Staff place stickers on deskside recycling bins as a part of CDC's new Deskside Recycling Program, which provides each employee with a personal receptacle for their recyclables at his or her work station.

Staff from CDC's National Institute for Occupational Safety and Health (NIOSH) in Cincinnati, Ohio, participate in Bike to Work Day in May of 2014.

SUSTAINABILITY INITIATIVES AT CDC

Automated Paperwork Management Systems
Bike Trains for Commuters
Biostabilizer Laboratory Pilot
Bring Your Own Bag (BYOB)
Bring Your Own Cup (BYOC)
Bring Your Own Device (BYOD)
Cafeteria Recycling
Campus Green Teams
Campus Walking Clubs
Carpooling/Vanpooling Preferred Parking and Programs
CDC Freezer Challenge
Freezer Challenge Toolkit (for external and internal use)
Director's Stair Walks
Document Shredding Events (with Emory University)
Duplex Printing Initiative
Earth Week Campus Walks and Tabling
Employee Community Garden
FareShare Green Commuting Subsidies
Garden Markets
Green Fleet Vehicles for Employee Use
Green Laboratory Initiatives
Healthiest CIO Challenge
Laboratory Recycling
Nightly Light and HVAC Setbacks and Occupancy Sensors
No Idling Policies on CDC Campuses
PC Power Management of Network Computers
Secure Bike Parking, Showers and Lockers
Single Computer Model
Single Stream (Deskside) Recycling
Solar Lighting Installations
Sustainable Lab Fairs
Teleconferencing/Virtual Conferencing Capabilities
Telework/Alternative Work Schedules
Virtual Tours of LEED-Certified Buildings

SUSTAINABILITY STRUCTURE AT CDC

CDC's Quality and Sustainability Office (QSO) operates within the Office of Safety, Security and Asset Management (OSSAM) under CDC's Office of the Chief Operating Officer (OCOO).

QSO champions sustainability efforts at the Agency while also completing quality reviews of internal processes that incorporate the sustainable tenets of efficiency and responsible resource management into operations and offices across CDC.

Alongside QSO staff, OSSAM leadership has appointed formal Sustainability Goal Managers, listed below, within responsible offices that correspond to each HHS Strategic Sustainability Performance Plan (SSPP) goal. This ensures that sustainable changes can be implemented from within offices that maintain authority in various sectors.

Throughout the year, Goal Managers worked to plan goal-related events, liaised with QSO staff and other Agency stakeholders and tracked progress towards achievement of overall and interim goals in their assigned scope of work. Goal Managers met quarterly throughout the year with their leadership and QSO staff to provide updates on progress, to identify opportunities for development and improvements in operations and to create strategic plans that incorporate both sustainability and climate change resilience into their work.

CDC's Quality and Sustainability Office (QSO) staff

In December of 2014, CDC leadership identified Goal Managers to serve for the 2015 calendar year, with all 2014 Goal Managers returning to their positions. Two additional co-Goal Managers have also been identified to work on the new HHS SSPP Goal 10 (Energy Performance Contracts).

2014 HHS SSPP GOAL MANAGERS

CDC's Sustainability Goal Managers work within their respective offices to enact changes in support of sustainability goals as well as to promote green behavior amongst their peers. Several personnel take on the responsibility of multiple goal areas, serving as subject matter experts in their fields and using their knowledge and skills to improve operations across two or more sectors.

2014 HHS SSPP Sustainability Goal Managers included:

Goal 1 Scope 1, 2 and 3 Greenhouse Gas Reduction Agency-Comprehensive Greenhouse Gas Inventory:
Bruce Jue, OSSAM/AMSO/EMOSO (Scope 1 & 2); Thayra Riley, OSSAM/TSO (Scope 3)

Goal 2 High-Performance Sustainable Design, Green Buildings & Regional and Local Planning: Stephen Klim, OSSAM/AMSO/PCMSO

Goal 3 Fleet Management: Shirley Alston, OSSAM/TSO

Goal 4 Water Use Efficiency and Management: Bruce Jue, OSSAM/AMSO/EMOSO

Goal 5 Pollution Prevention and Waste Reduction: Barbara Blanke, OSSAM/AMSO/LMSO

Goal 6 Sustainable Acquisition: Sarah Gray, PGO/OAS

Goal 7 Electronic Stewardship and Data Centers: Timothy Horner, OCIO/ITSO

Goal 8 Renewable Energy: Bruce Jue, OSSAM/AMSO/EMOSO

Goal 9 Climate Change Resilience: TBD

Goal 10 Energy Performance Contracts: Sarah Gray, PGO/OAS; Bruce Jue, OSSAM/AMSO/EMOSO

GAUGING PROGRESS WITH SUSTAINABILITY SCORECARDS

Each year, HHS is provided with a Sustainability Scorecard by the White House Office of Management and Budget (OMB) that offers a cumulative, at-a-glance indicator of the Department's status in relation to each SSPP goal. In turn, HHS provides each OPDIV with an individual scorecard to show their achievements in comparison to other agencies. An organization is scored Green, Yellow or Red, depending on how successful they have been at meeting each goal through the course of the year. CDC's most recent scores are shown below.

Please note that HHS releases scorecards in February/March of each calendar year, reflecting the progress of the previous year after all 2014 data calls are complete. At the time of publication (January 2015), CDC's 2014 scorecard was not available. Any expected rating changes are denoted below and will be listed on each page of the report for your convenience and to reflect the impact the listed initiatives have had on agency progress.

To view the most recent copy of the HHS Scorecard, visit http://sustainability.performance.gov/.

CDC FY 2013 Sustainability Performance Tool

Data as of 9/30/2013

Scope 1&2 GHG Emission Reduction Target Met Scope 1&2 GHG reduction target of 10.3% by FY 2020, with a 23.7% reduction in FY 2013.	Green
Scope 3 GHG Emission Reduction Target Met Scope 3 GHG reduction target of 3.3% by FY 2020, with an 8.8% reduction in FY 2013.	Green
Reduction in Energy Intensity On track to meet 30% energy intensity reduction in goal-subject facilities by FY 2015 compared to FY 2003. FY 2013 target was 24%, actual reduction was 27.1% in FY 2013.	Green
Use of Renewable Energy Met target goal of 7.5% use of renewable energy as a percent of facility electricity use. Actual FY 2013 use was 12.6% from renewable electricity sources including at least 3.75% from new sources.	Green
Reduction in Potable Water Intensity Not on track to meet 26% water intensity reduction by FY 2020 compared to FY 2007. FY 2013 target was 12%, actual was a 28.6% increase in FY 2013.	Red
Reduction in Fleet Petroleum Use Met fleet petroleum use reduction goal of 20% by FY 2015 compared to 2005, with an 81% reduction in FY 2013.	Green
Green Buildings On track to meet sustainable green buildings goal of 15% (>5,000 GSF) meeting Guiding Principles by FY 2015. FY 2013 actual was 6.8% of total buildings and 23.6% GSF of inventory (as reported in FRPP).	Yellow
Electronic Stewardship *(FY 2012 data, currently gathering FY 2013 data)* Met goal of 95% use of electronic printing products with duplexing features, and 100% of eligible PC, Laptops, and Monitors with power management actively implemented and in use. FY 2012 actual was 100% for each measure.	Green
Sustainable Acquisition On track to meet 95% compliance goal of new contract actions meeting sustainable acquisition requirements. HHS FY 2013 measure was 92%.	Yellow
Pollution Prevention & Waste Reduction On track to meet goal of 50% diversion of non-hazardous waste and C&D materials/debris by FY 2015, and increase composting practices. FY 2013 target for non-hazardous waste diversion was 30%, actual diversion was 41.5%. FY 2013 target for C&D material diversion was 40%, actual was 96.6%.	Green

Updated: March 11, 2014

Thanks to the work of CDC's Asset Management Services Office, water use at the Roybal campus was reduced by 40.1% in FY2014, with an overall agency reduction of 30.8%. CDC is expected to receive a yellow on its next scorecard, with further savings and a green score expected within two years.

CDC has begun work on several projects that are expected to bring two facilities into compliance with the Guiding Principles in the next year. Energy Conservation Measures and Water Conservation Measures will also be identified as a part of investment-grade audits completed during Energy Performance Contracts (Goal 10), some of which will be implemented to bring additional buildings up to standards.

CDC is in compliance with Sustainable Acquisition goals as outlined in the SSPP, though the Department as a whole has been scored yellow.

GOAL 1: Greenhouse Gas (GHG) Reduction

Energy Intensity; Scope 1, 2 & 3 Emissions; VMTs

GOAL 1: Greenhouse Gas Reduction & Maintenance of Agency Greenhouse Gas Inventory

- Reduce energy intensity by 3% per year, in goal-subject facilities compared with FY 2003
- Reduce total energy intensity by 32.5% by FY 2020
- Scope 1&2 GHG Emission Reduction Target 10.3% by FY 2020
- Reduce GHG emissions for federal employee travel by 1% by FY 2020 from FY 2010 baseline
- Reduce GHG emissions for Scope 3 emissions by 3.3% by FY 2020 from FY 2010 baseline
- Reduce the number of vehicle miles traveled (VMT) for commuting purposes

CDC Sustainability Scorecard Rating: Green (Expected rating for FY2014: Yellow)

2014 ACHIEVEMENTS AND INITIATIVES

CDC decreased its energy intensity nationwide by 25.4% in FY2014 as compared to its baseline year of FY2003. Although CDC's energy intensity reduction exceeded the annual goal, extreme weather events in 2014 increased natural gas usage across most CDC/NIOSH campuses resulting in a slight increase in energy intensity for the year.

CDC's Asset Management Services Office (AMSO) completed a number of upgrades to facilities and equipment throughout the year that contributed to the reduction in energy usage, including HVAC improvements such as chiller and cooling tower replacements.

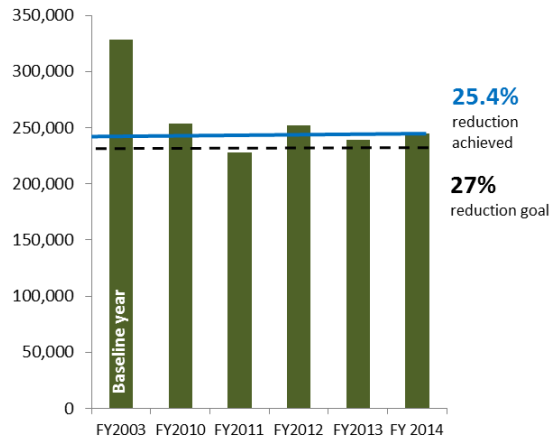
These improvements and reductions in energy consumption have helped to reduce CO2 emissions from all sources, with a 22.4% reduction in Scope 1 and 2 emissions and an 87.7% reduction for Scope 3 across the Agency since 2008, not including emissions from CDC fleet vehicles. Data for fleet emissions was not available at the time of publication.

In support of reducing Scope 3 emissions, the Transportation Services Office conducted Transportation Fairs at all Metro Atlanta Campuses during FY2014, at which employees were provided information regarding alternative commutes and teleworking and were encouraged to utilize these resources as they were able. As a result of these efforts, and due to updates to Telework policies and training modules, CDC has consistently reduced Scope 3 GHG emissions and seen a significant increase in the number of applications for commute options such as Carpool, Vanpool, Fare Share and Telework. As of 4th quarter 2014, CDC had approximately 1,217 employees that use an alternative mode of transportation for their daily commute, including Fareshare, vanpooling or carpooling, with 5,226 employees on a telework agreement. As of 2014, 46% of CDC employees were actively teleworking.

In further support of active commuters, TSO continues to manage the bicycle locker program on both Roybal and Chamblee campuses. In FY2014, bike repair kiosks were purchased and will be installed on Roybal and Chamblee campuses. Additional bike racks and a covered shed were also installed at Chamblee. As a result of these efforts, CDC has maintained its status as a Platinum Level Partner with Georgia Commute Options, formerly known as the Clean Air Campaign.

Energy Management Requirement

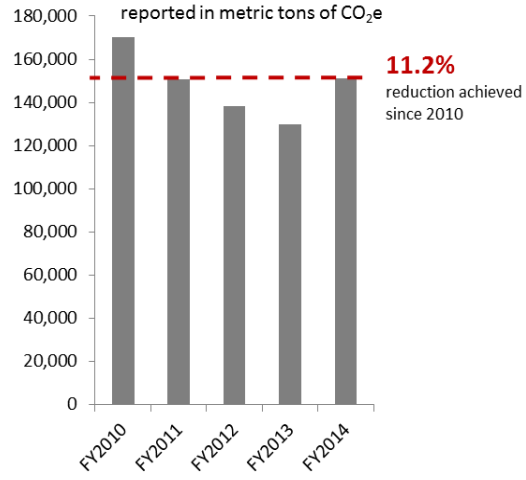
Reduction in energy intensity in facilities subject to NECPA/E.O. 13423 goals, reported in Btu/GSF



CDC has reduced overall energy intensity by 25.4% as compared to the baseline year, FY2003.

Greenhouse Gas Emissions Reduction

Reduction in total (Scope 1, 2 & 3) greenhouse gas emissions, reported in metric tons of CO_2e



CDC has reduced its GHG emissions for Scope 1, 2, and 3 emissions by 23.5% as compared to FY2010. Note that at the time of publication, fleet emissions numbers were not available. As of FY2014, Green Power purchases from local utilities no longer offset total GHG emissions from energy consumption.

GOAL 2: Buildings, ESPC/UESC Initiative Schedule, and Regional & Local Planning

- Assess and demonstrate that at least 15% of agency's existing government-owned buildings, agency direct-leased buildings, delegated authority leased buildings and buildings meet Guiding Principles by FY 2015
- Show continuous improvement towards 100% compliance with Guiding Principles
- Incorporate sustainable practices into agency policy and planning for new Federal facilities
- Operate and maintain, and conduct minor repairs and alterations for existing building systems to reduce energy, water and materials consumption
- Reduce need for new building and field office space by utilizing technologies to increase telework opportunities and expand delivery of services (over the internet or electronically)

CDC Sustainability Scorecard Rating: Yellow

2014 ACHIEVEMENTS AND INITIATIVES

CDC has a proud history of constructing LEED certified major capital projects, the latest being the B107 project on CDC's Chamblee campus. LEED Gold Certification for B107 was confirmed in May of 2014, bringing CDC's total to five LEED certified buildings. CDC is currently in the process of confirming Guiding Principle (GP) compliance for Building 107 and is optimistic to add it to CDC's GP compliant portfolio early in 2015. CDC is also excited to potentially add Building B on the Lawrenceville campus to the list of LEED certified and GP compliant facilities in 2015. This will represent a proud milestone in reaching GP compliance for an existing asset, and represents a tangible shift in hierarchy for our many existing buildings. By the numbers for buildings above 5,000 square feet, this equates to a jump from 6.55% last year to 8.2% this year in number of GP compliant buildings, and a jump from 23% to over 24% of all gross square footage.

Work on Lawrenceville Building B, pictured above, is expected to be completed in early- to mid-2015, bringing the facility into compliance with the Guiding Principles.

The practice of embedding GP compliant features within all repair and improvement projects when feasible is gaining traction and is incorporated in our design standards. The recently developed "Best Candidate Buildings" list is at the heart of this continued effort.

Given the recent challenging economic climate, CDC is pushing to do more with less. In addition to demolishing older, less efficient buildings, several utility related projects tapping our existing central plants or upgrading in-efficient utility distribution systems are short term goals in the upcoming years. Embarking on performance contracting (UESC/ESPC) programs to fund some of these large scale efforts underscores CDC's sustainable commitment to existing facilities regardless of the funding vehicle.

CDC-Owned Facilities Meeting Guiding Principles

Roybal, Building 21
Roybal, Building 24
Chamblee, Building 106
Chamblee, Building 110

CDC-Owned Facilities Guiding Principles Current and Planned Projects

Lawrenceville, Building B
Chamblee, Building 107
Roybal, Building 10

As of year-end 2014, project teams have been identified for performance contracts in both Atlanta and Pittsburgh. Under this new project financing mechanism, both campuses have collectively committed more than $6 million in energy and water efficiency projects to be completed by year-end 2016. Atlanta Gas Light has been identified as the contractor for the Atlanta Utility Energy Savings contract and the Pittsburgh project team is in the process of identifying a project plan for an Energy Savings Performance Contract.

Building assessments will be conducted as the first step of the performance contract process to identify energy and water savings opportunities. These types of projects will be aligned with CDC's "Best Candidates" list to ensure the agency is receiving the greatest return on investment from both a financial and sustainable point of view. Rethinking existing processes and creating new standard operating procedures remain another area of potential success. CDC's recent water reduction efforts in Building 23 and 17 are prime examples of this mindset.

GOAL 3: Fleet Management

- Reduce the use of fossil fuels by using low greenhouse gas emitting vehicles including alternative fuel vehicles
- Reduce the use of fossil fuels by optimizing the number of vehicles in the agency fleet
- Reduce the use of fossil fuels by reducing, if the agency operates a fleet of at least 20 motor vehicles, the agency fleet's total consumption of petroleum products by a minimum of 2 percent annually through the end of FY 2020, relative to a baseline of FY 2005

CDC Sustainability Scorecard Rating: Green

2014 ACHIEVEMENTS AND INITIATIVES

CDC consistently strives to achieve reduction in fuel use each year by decreasing the number of total vehicles in the motor pool, properly distributing newly acquired alternative fuel vehicles and encouraging ridesharing for employees who utilize fleet resources. CDC has been working to replace high usage motor pool vehicles with hybrids and alternative fuel vehicles in order to achieve the reduction in fleet petroleum use outlined in E.O. 13423.

Gasoline consumption increased slightly from FY2013 to FY2014, with CDC consuming 29,408 gallons during the current year as compared to 26,285 gallons in FY2013.

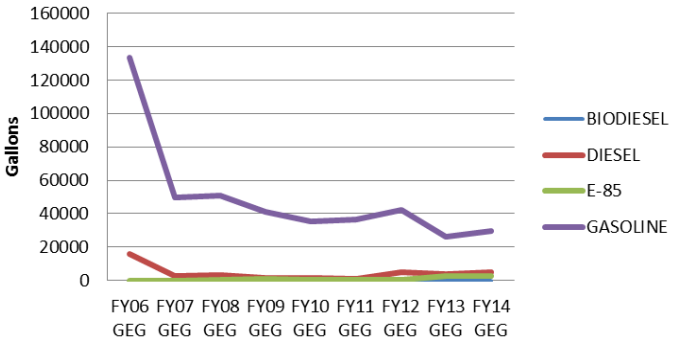
Two electric cars arrived in early 2014 as part of a General Services Administration (GSA) pilot, for use by CDC employees within the agency fleet.

Two additional electric vehicle charging stations were installed and brought on line at CDC's Roybal campus this year, in addition to the stations placed at the Chamblee campus in 2013. These stations are intended for use by government vehicles only, but CDC's Transportation Services Office (TSO) continues to monitor the possibility of installing pay-per-use stations for employee use that would be in compliance with land and resource use requirements. CDC's Fleet Manager planned and hosted several events throughout FY2014 at Atlanta-area campuses that allowed agency personnel to test drive the new electric vehicles. By familiarizing staff with the available automobiles, TSO hopes to increase their use and, in turn, reduce fuel consumption as well as emissions.

CDC's most efficient vehicles are still being designated to serve offices that more heavily utilize fleet automobiles. Additionally, two under-utilized COOP vehicles were decommissioned this year. These "right-sizing" measures ensure that the Agency is utilizing resources as efficiently as possible and thus reducing its environmental footprint.

Fuel Consumption

Total fuel consumption of CDC fleet vehicles, reported in galons or gasoline equivalent gallons

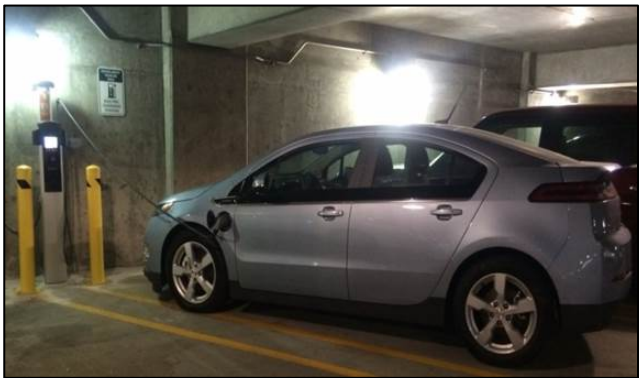


Gasoline consumption increased slightly from FY2013 to FY2014, with CDC consuming 29,408 gallons during the current year as compared to 26,285 gallons in FY2013.

Fleet Vehicle Types

Number and Fuel-Type of CDC Fleet Vehicles

	2012	2013	2014
Number of Vehicles in CDC's Fleet	226	224	**215**
Number of Alternatively Fueled Vehicles in CDC's Fleet	121	143	**139**



As part of a GSA pilot, CDC received two electric vehicles for addition to its fleet. Two additional Electric vehicle charging stations, for use by government vehicles only, were also installed in 2014.

GOAL 4: Water Use

Water Intensity, Potable Water Consumption, Leak Detection

GOAL 4: Water Use Efficiency and Management

- Reduce total water use intensity by 2% per year or 26% by FY 2020 from 2005 baseline
- Reduce potable water consumption intensity by 20% by FY 2015 from approved 2007 baseline
- Continually develop and improve leak detection strategies

CDC Sustainability Scorecard Rating: Red (Expected rating for FY2014: Yellow)

2014 ACHIEVEMENTS AND INITIATIVES

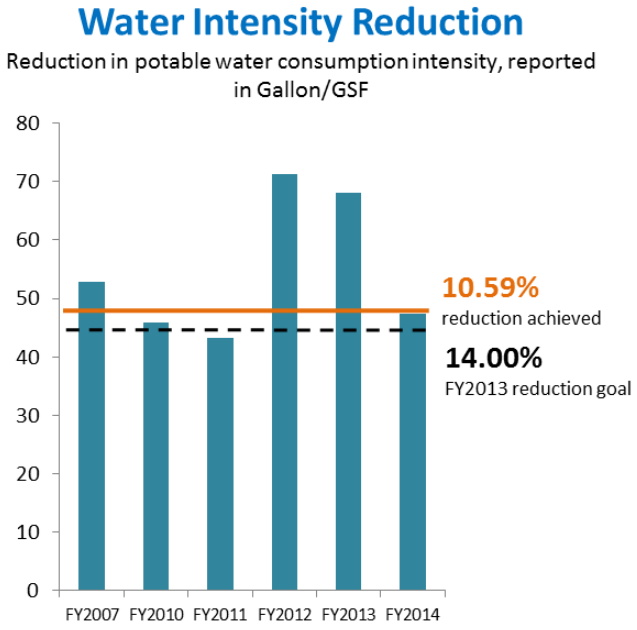
CDC achieved an incredibly large reduction in water usage during FY2014, thanks to a concentrated effort by OSSAM staff to identify and correct operational issues that were resulting in thousands of gallons of water being wasted each day. CDC reduced its water intensity by 30.5% from FY2013 to FY2014, achieving a 10.6% reduction from its FY2007 baseline.

CDC has many measures in place intended to moderate its water use, but noted in early 2012 that a disproportionate amount of water, nearly 25% of the total Roybal campus usage, was being consumed by Building 23, which was contributing to a "Red" rating on the agency's sustainability scorecard.

Sustainability and Operations leadership within the Office of Safety, Security and Asset Management (OCOO/OSSAM) assembled a team of stakeholders and leadership to pinpoint the cause of Building 23's water consumption and also to identify and implement measures that would mitigate future use across the Roybal Campus. The team began meeting in February of 2013, with representatives in attendance from multiple offices within the Office of Safety, Security and Asset Management (OSSAM), including the Office of the Director (OSSAM/OD), the Asset Management Services Office (OSSAM/AMSO) and the Quality and Sustainability Office (OSSAM/OD/QSO). The team examined the possibility for leaks, pored over previous water bills from the local utility, and scheduled and completed a re-calibration of each meter at CDC to ensure that the Agency was being properly charged for its usage.

After it was determined that Building 23 was by far the largest consumer, team members began to connect with building occupants to determine next steps in water reduction, working in conjunction with their staff to find mutually beneficial solutions that satisfied both sustainability requirements and stringent biological-safety standards. A concentrated communications effort based on newly available meter information led to the creation of monthly water assessments that detailed water usage by building and was forwarded out to leadership to increase awareness of the water use reduction effort.

As a part of the project, a contracted study with Jacobs Engineering was also carried out, spearheaded by AMSO, that unearthed a problem within Building 23 in which the flush valves (used between levels B3 and B4 to avoid entrapment of any animal waste in the pipes as the vivarium rooms were cleaned), were being left on unnecessarily for days at a time. The contractor estimates that the correction of this issue represents a potential 60 Million gallon reduction in use per year, which equates to approximately $840,000 per year in utility savings.



CDC reduced water use intensity by 30.5% compared to FY2013 but fell just short of the long term goal of 12% reduction from the 2007 baseline.

Overall, CDC has reduced its water use intensity on the Roybal campus alone by 40.1% from FY2013 to FY2014. The correction of the Building 23 valve issue is expected to result in even larger savings during FY2015, thanks to the quick remediation work being completed by AMSO after the discovery.

A decrease in usage, in addition to promoting more responsible consumption of resources, directly results in fiscal savings under the new Working Capital Fund, which charges CIOs for water within the Rent, Utilities, and Operations and Maintenance service line. Utility costs for water have increased 59% within the last 5 years, and implementation of efficiencies related to the flush valves in Building 23 will help to significantly reduce the total water costs to CDC.

GOAL 5: Waste Reduction & Diversion

Recycling, Source Reduction, Non-Hazardous Waste Diversion, C&D

GOAL 5: Pollution Prevention and Waste Reduction

- Increase source reduction of pollutants and waste
- Divert at least 50% non-hazardous solid waste by FY 2015
- Divert at least 50% C&D materials and debris by FY 2015
- Reduce printing paper use, and only purchase uncoated printing/writing paper containing at least 30% PCF
- Minimize acquisition, use and disposal of toxic and hazardous chemicals

CDC Sustainability Scorecard Rating: Green (Expected rating for FY2014: Yellow)

2014 ACHIEVEMENTS AND INITIATIVES

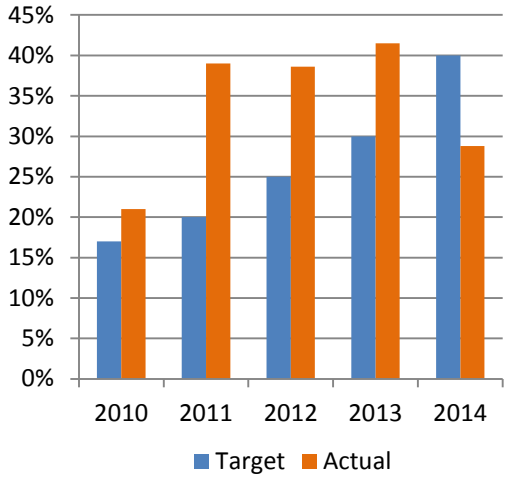
In FY2014, CDC achieved a 28.8% diversion rate for non-hazardous solid waste, falling short of its goal of 40% diversion for the year. CDC is required to reach a diversion rate of 50% by 2015 for both non-hazardous and construction and demolition waste. The decrease in diversion is expected to be a result of reporting errors, which CDC is working to correct in 2015. The agency implemented several major recycling programs this year that are expected to increase the diversion rate in the near future.

In late FY2014, an expansion to last year's deskside recycling pilot at Chamblee B107 was implemented at all Atlanta owned campuses (Chamblee, Lawrenceville and Roybal). Staff from across OSSAM hand-placed stickers on more than 8,000 blue recycling bins, which detailed the materials that can and cannot be recycled. CDC's Asset Management Services Office (AMSO) is working with Goodwill to ensure the program is implemented properly and that all appropriate material is picked up and diverted from the landfills so that CDC can achieve its mandated goals. CDC also maintains programs to recycle specialized materials including Styrofoam, lab plastics and ice packs. A cafeteria recycling pilot was also rolled out in late 2014, intended to improve recycling rates of food service areas at CDC.

Approximately 8,000 deskside recycling bins were labeled by OSSAM staff for distribution to occupants of all Atlanta-owned buildings.

Non-Hazardous Solid Waste Diversion

(Excludes Construction and Demolition Waste)



CDC diverted 28.8% of non-hazardous solid waste in FY2014.

CDC is also working to reduce the number of hazardous chemicals (and, subsequently hazardous waste) that is produced at nationwide campuses. This year, the agency hit a milestone when in April it was confirmed that all R-11 refrigeration units and R-11 refrigerant which contains CFC's (chlorofluorocarbons) that are harmful to the environment, had been removed from Atlanta campuses. Thanks to work by EMOSO leadership and LT Brek Steele, more than 7,233 pounds of refrigerant have been reclaimed from CDC to date, with the agency being credited approximately $70,000 towards the purchase of less toxic alternatives for other units.

CDC partnered with several local organizations throughout the year to give personnel the opportunity to donate their own unneeded or unwanted materials in a responsible manner, as well. Though these materials don't count towards CDC's SSPP goal achievement, promoting a culture of responsible waste management in personal life is an important part of work-life balance. Emory Recycles hosted a Personal Document Shredding event during the spring, which resulted in 2100 pounds of materials being collected. Goodwill also hosted two drives during the year at Chamblee and Roybal campuses, bringing in 931 donations that equate to 839 hours of job training for North Georgia workers.

GOAL 6: Sustainable Acquisition

- Ensure 95% of applicable new contract actions and modifications require products and services that are energy and water efficient, bio-based, environmentally preferable (EPEAT certified), non-ozone depleting, contain recycled content and non-toxic or less toxic alternatives.
- Coordinate training and outreach related to these requirements to all purchasers, purchase reviewers and contract officers

CDC Sustainability Scorecard Rating: Green

2014 ACHIEVEMENTS AND INITIATIVES

The Agency has drafted and approved multiple clauses to be included in all applicable contracts to ensure the purchase of environmentally preferable products and services. CDC reviews contract actions for each quarterly Green Purchasing report to show the application and result of these clauses.

CDC's first ever Office of the Chief Operating Officer (OCOO) Training Forum was held in June of 2014 for all OCOO employees, and featured two Green Purchasing Trainings. Goal 6 Manager Sarah Gray hosted both trainings, creating a presentation that would help to further personalize green purchasing for Contract Specialists and highlight creative ways in which they could incorporate sustainability into the contract actions they are each responsible for. The training was well-attended, with full rooms for both sessions.

Several in-person "Green Purchasing" Trainings were held as a part of the inaugural OCOO Training Forum in June of 2014. The training is required for all purchasing officers and is designed to show these staff members how they can incorporate sustainable purchases into their contracts and purchase orders.

Changes to CDC's DCIS reporting tool were completed by the agency's Management Information Systems Office (MISO) during this year that require consideration of green purchases in every contract created in the system. The changes require any contracting officer to answer specific questions related to the consideration and usage of sustainable materials alternatives in their contracts. Previously, green considerations were listed as an optional form field, allowing contract specialists to gloss over the inclusion of sustainable alternatives as a consideration. Updates to the system require a conscious effort on the part of each contract specialist to bring green purchasing into their work.

In support of requirements to identify and suggest less toxic alternatives to commonly purchased materials, several OSSAM offices began the process this year of identifying CDC's most commonly used chemicals as well as its most toxic chemicals. After the list of chemicals is confirmed, CDC will work with NIH and other HHS OPDIVs to identify appropriate substitutions for laboratorians that will both ensure that their lab work is of the highest quality and also will reduce the amount of hazardous chemical waste that the agency produces.

In addition to the acquisition of environmentally preferable products and services, CDC works to reuse materials in good condition rather than discarding the products, including furniture and electronics. This reduces the need to purchase new equipment and materials and also helps to guarantee that CDC's purchased goods were being utilized responsibly through the end of their usable lives.

GOAL 7: Electronic Stewardship

Data Center Consolidation, Power Management Strategies

GOAL 7: Electronic Stewardship and Data Centers

- Establish and implement policy/guidance to ensure use of power management, duplex printing, and other energy efficient or environmentally preferred features on all eligible agency electronic products.
- Employ environmentally sound practices for disposition of all agency excess or surplus electronic products.
- Ensure implementation of best management practices for energy efficient management of servers and Federal data centers

CDC Sustainability Scorecard Rating: Green

2014 ACHIEVEMENTS AND INITIATIVES

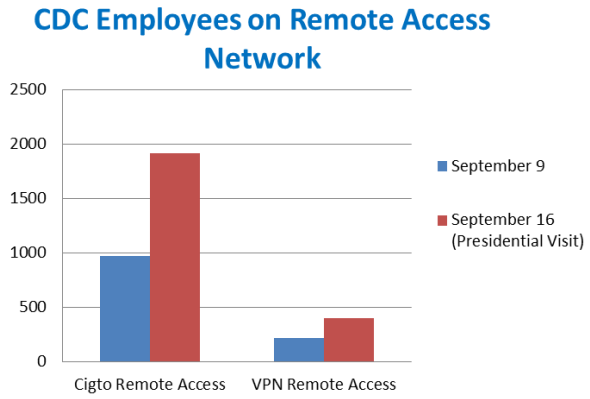
As of FY2014, 100% of CDC's 30,000 laptops, PC computers and other electronics purchases are Energy Star qualified or covered by Energy Star specs, are EPEAT-registered, and are FEMP designated. All eligible agency PCs, laptops and monitors have Verdiem power management software actively implemented and in use, meaning that all client workstations are powered down nightly and computers are set to idle automatically to reduce power usage.

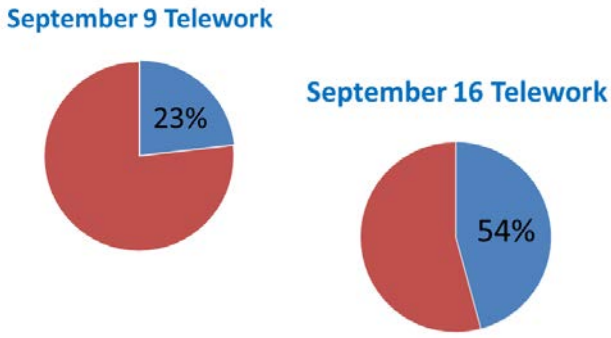
CDC has also initiated a Single Computer Model which requires individual users to operate with only one primary computing device, reducing the overall number of computing devices in the Agency. To further reduce the number of assigned devices, CDC ITSO has implemented a Bring Your Own Device (BYOD) plan to allow CDC staff to utilize their own personal smart phones to access CDC mail and Outlook functions, thereby reducing the overall number of Blackberries in service.

On September 16th, CDC was fortunate to host a visit by President Obama at the Roybal Campus. The President, accompanied by HHS Secretary Sylvia Burwell and other US government officials, provided a briefing to CDC officials about the unprecedented Ebola outbreak in West Africa. In anticipation of heightened security activity on campus, CDC leadership encouraged employees to telework on this day if they were able. ITSO provided data reflecting the number of employees who worked remotely that day, seen to the right, which doubled as compared to a normal work day. This data provides an optimistic view into the future of teleworking at CDC. We are confident that we have the capacity to provide a network for telework during extreme weather, or other situational events which will provide flexibility to our employees as well as reduce our carbon footprint.

ITSO continues to utilize meeting management technologies, including Live Meeting/Tele- & Video-conferencing, that allow video-conferencing to assist CDC programs in hosting and participating in events. These technologies allow a large number of staff to utilize CDC's telework system. They also reduce business travel and corresponding emissions. Continuous updates to the software applications are being made to improve remote network access and conferencing capabilities.

As a result of continued top performance, ITSO was recognized by HHS with a Green Champion Award for Electronic Stewardship in 2013.





CDC/ITSO team receives an HHS Green Champion award for Electronic Stewardship. Pictured above (right to left): Genevieve Hansen (HHS), Timothy Horner (CDC), Jim Landers (CDC), Joe Henderson (CDC), Mylan McEwan (CDC), Howard Smith (CDC), Sherri Berger (CDC), Liz York (CDC)

GOAL 8: Renewable Energy Use

- Use of renewable energy as a percent of facility energy use: Total of 5.0 from renewable energy sources, including at least half from new renewable sources. This percentage will increase to 7.5% of total usage in FY2013.

CDC Sustainability Scorecard Rating: Green

2014 ACHIEVEMENTS AND INITIATIVES

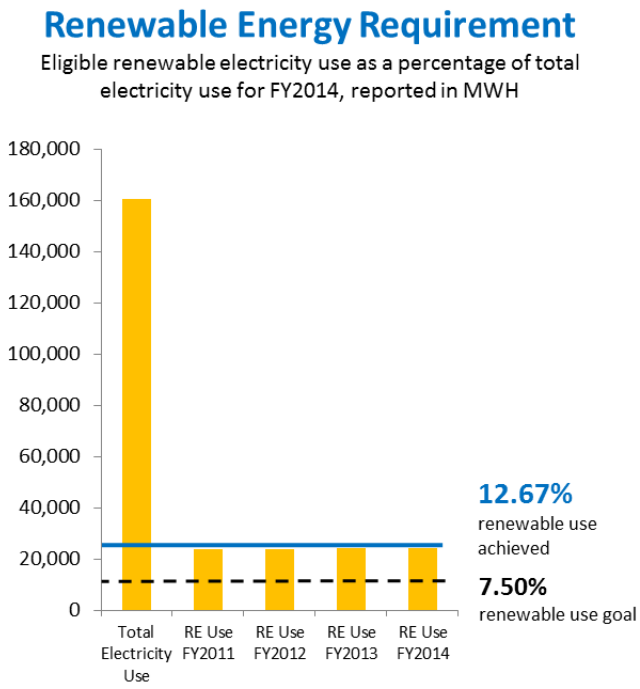
Renewable energy requirements for HHS OPDIVs were previously listed as a sub-bullet under Goal 1 in the HHS SSPP and were broken out as a separate goal for the first time in the 2013 version of the document as a response to the identification of renewables as a focus for the Obama Administration. For the fourth consecutive year, CDC has exceeded these renewable energy goals, procuring 12.67% of its total energy use from renewable sources and surpassing the requirement of 7.5%.

In order to meet these requirements, the Agency has entered into green purchasing contracts with local utilities providers at several campuses across the country. At the Fort Collins, CO, and Spokane, WA, campuses, 100% of energy consumed is wind power generated. Both locations will continue to procure solely green power for the foreseeable future as a part of their arrangements. CDC also purchases green power from Georgia Power for several of its Atlanta-area campuses as part of a three-year agreement, which it plans to renew at the contract's end.

While CDC does not maintain a sizeable renewable installation on any of its campuses, the Agency has incorporated the potential for major renewables projects into master plans and into newly constructed facilities. For instance, the roof of Building 107 on CDC's Chamblee campus, completed in spring of 2013, has been outfitted with the proper pre-installation equipment for solar panels should a photovoltaic (PV) project be approved in the future.

PV Solar evaluations have been conducted for Buildings 101 and 102 at CDC's Chamblee campus. CDC currently has installed solar panels at its South Surface Lot on the Roybal campus.

CDC's South Surface Lot at the Roybal Campus is lit by a series of photovoltaic (PV) solar panels.



CDC has achieved a renewable energy use percentage of 12.67%, compared to its total energy use for FY2014, exceeding the federal mandate by 5.17%.

A review of utilities data related to a geothermal pilot at NIOSH MRET has also been conducted to assess the viability of the project as a prototype for future work.

On December 5 of 2013, President Obama released a Presidential Memorandum titled "Federal Leadership on Energy Management," outlining upcoming renewables requirements for all Federal agencies. CDC personnel from multiple offices reviewed and provided input to the Presidential Memo. The document provides updated metrics for renewable energy goals and also details the acceptable channels through which agencies may procure or produce green power. According to the Memo, 20% of the total amount of electric energy consumed by each agency during any fiscal year shall be renewable energy by FY2020. CDC will continue to review and improve its renewable procurement processes to ensure future compliance with this directive.

GOAL 9: Climate Change Resilience

- Set the standard for federal agencies in sustainable development.
- Provide climate-resilient health and human services.
- Support scientific research focused on environmental and public health, including research on the effects of climate change on human health and well-being.

2014 ACHIEVEMENTS AND INITIATIVES

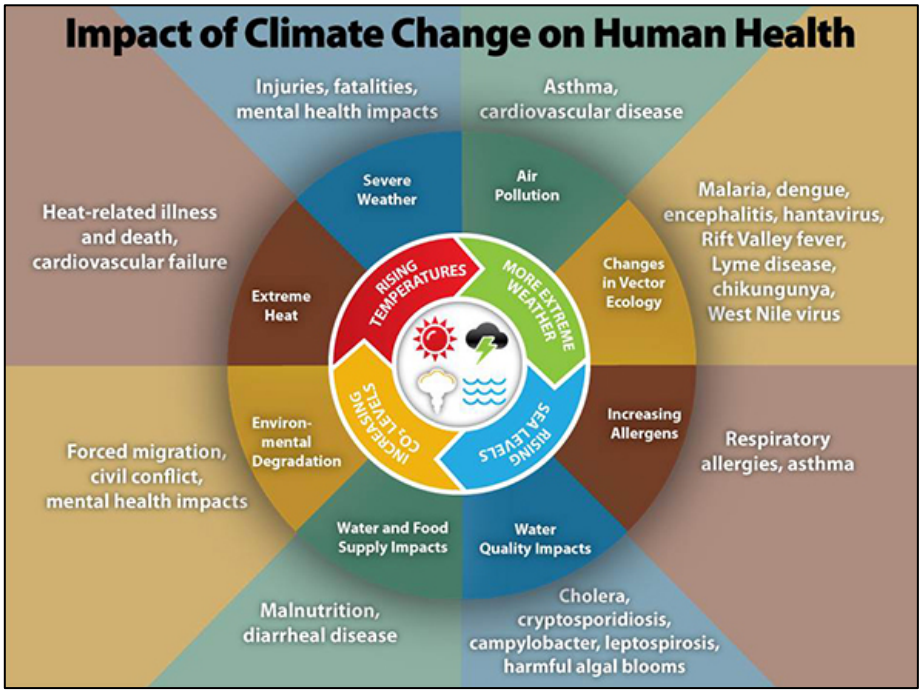
In response to Executive Order 13653, released on November 6, 2013, HHS has released an updated version of its Climate Adaptation Plan that outlines the ways in which the department plans to incorporate climate change adaptation into its current operations and future plans. These actions will help to ensure the safety and health of populations that HHS serves across the globe, and particularly within our own country.

The Plan includes assessment of risks to the HHS mission, description of current and future activities to be completed in support of adaptation, and a section on sustainable buildings and continuity of operations.

Experts in CDC's National Center for Environmental Health (NCEH) have been working for years to identify the potential effects of climate change on various populations and regions of the country. This year, NCEH posted the results of research that outlines the health effects of various climate change risks as they relate to specific types of illnesses and injuries. The graphic below illustrates several of these potential impacts.

The Federal Emergency Management Authority (FEMA) hosted two workshops in Washington D.C. in 2014 for federal government leadership that were focused on inclusion of climate change adaptation practices into operations and planning. Multiple representatives from CDC were present at each event, including OSSAM Director Joseph Henderson, representatives from the agency's Asset Management Services Office, and representatives from CDC's Quality and Sustainability Office. Climate change adaptation has also been included as a topic for discussion in many leadership meetings within OSSAM, starting this year, and will be considered in decisions moving forward in regards to facilities locations and operations.

CDC's December 2014 Sustainability Review, forwarded out to more than 800 individuals including CDC leadership and management, focused on Climate Change Resilience and presented information on the recently released HHS Climate Adaptation Plan. To further educate personnel, the communications also provided resources related to incorporating climate change resilience into strategic planning for the upcoming year.



CDC's National Center for Environmental Health (NCEH) released several pieces of new information this year regarding the impact of climate change on human health.

GOAL 10: Energy Performance Contracting

- Evaluate 25% of agency's most energy intensive buildings for use with energy performance contracts.
- Prioritize top ten projects, which will provide greatest energy savings potential.
- Identify and commit to include 3-5 onsite renewable energy projects in energy performance contracts.
- Provide measurement and verification data for all awarded projects.
- Provide monthly contract status updates to HHS and CEQ as required.

PERFORMANCE CONTRACTING: OVERVIEW

Energy Performance Contracting is an innovative financing technique that uses cost savings from reduced energy consumption to repay the cost of installing energy conservation measures. Normally offered by local utilities and private sector companies, this innovative financing technique allows building users to achieve energy savings without up-front capital expenses. The costs of the energy improvements are borne by the performance contractor and paid back out of the energy savings. Other advantages include the ability to use a single contractor to do necessary energy audits and retrofit and to guarantee the energy savings from a selected series of conservation measures. (Source: HUD.gov)

HHS committed to implement $35.2M of performance contracting by December 31, 2013 in accordance with the 2011 President's Performance Contracting Challenge. By December 31, 2013, HHS awarded $40.9M in performance contracts exceeding the commitment by $5.7M. An additional $24M of contracts is currently in the pipeline, which yields a total commitment surplus of $29.7M.

Photo provided by NORESCO.com

2014 ACHIEVEMENTS AND INITIATIVES

CDC is revising its strategy and approach regarding implementation of UESC and ESPC projects. The Agency has a history of utilizing these procurement mechanisms in the past with varied levels of success. With the recent December 2013 Presidential Memorandum and a challenging funding climate, a new light has been cast on UESC and ESPC projects. CDC is increasing its interest and focus on these vehicles in the current and future fiscal years.

Training of appropriate personnel has already begun, as have initial procurement procedures that will allow the Agency to move forward with energy performance contracts. In FY2014 a decision was made to initiate a UESC project comprising the Roybal, Chamblee, and Lawrenceville campuses. The planned project scope will include required energy and water assessments, extensive lighting upgrades to LED fixtures, and on-site renewable generation.

Concurrent with these activities, CDC is also implementing a relatively large-scale endeavor at its Pittsburg facilities to upgrade the existing steam distribution system. Project scope is currently under development.

NEXT GENERATION OF SUSTAINABILITY

In addition to fostering a community of sustainability within our own agency, we believe that educating younger generations regarding responsible use is an important way to ensure the future health of our planet and populations. With a forward focus, the Quality and Sustainability Office (QSO) planned and participated in multiple programs throughout the year that provided kids of all ages with a chance to become involved in green initiatives and to learn how to apply sustainable concepts to their own lives.

Children of CDC personnel submitted more than 50 works of art as part of the HHS Earth Day Poster Contest.

In conjunction with all other HHS OPDIVs, CDC participated in the first annual HHS Kids' Earth Day Poster Contest, for relatives of all CDC personnel, grades K-12, during which entrants were asked to create artwork that represented this year's HHS Earth Day theme "Plant a seed, grow a healthy future." Nearly 50 children submitted their original work, three of which were selected as finalists at the HHS level for their grade categories. CDC also selected its own winners and honorable mentions for every grade. Posters were displayed at CDC's Earth Day Celebration at the Roybal Campus on April 21. A second CDC-wide poster contest was held in honor of America Recycles Day in November.

Quality and Sustainability Staff also served as mentors to 4 collegiate interns that worked on sustainability projects during 2014, including a Collegiate Leaders in Environmental Health (CLEH) student, two Student Worksite Experience Program students, and an Emory graduate student. These interns worked on projects such as freezer and autoclave inventories, office videos, and data analysis for Quality reviews. Their time here was intended to give the students the opportunity to see firsthand the work thank links health and sustainability and to give them a glimpse into public service.

Georgia Tech students visit CDC to present their final projects as a part of an improved design concept class.

QSO continued its partnership with Georgia Tech this year by teaming with two classes of industrial design graduate student who worked to incorporate sustainable design and materials into various products, minimizing their environmental footprint. In small teams, the students worked with CDC project champions to deliver improved design concepts for CDC equipment and other systems, including deployment kits for CDC workers being sent overseas, detectable warning paving systems, decontamination foggers, backpack sprayers, and Ergotron stand-up desks.

OUTREACH AND EDUCATION

A large part of creating successful sustainability initiatives revolves around the promotion of events and, especially, sustainability tenets amongst CDC audiences. By properly educating personnel regarding not only our agency's green requirements and mandates, but also on how they can become involved on a personal level, it is much easier to garner support for sustainability within the government. This year, Goal Managers, QSO staff, CDC leadership and general employees all worked to inform the agency and its partners about sustainability initiatives through several large scale events.

Earth Day Outreach, which centered around Earth Day on April 21, provided wonderful opportunities to bring in local partners from the Atlanta area to celebrate greening government. Representatives from Georgia Power, Emory Recycles and the Clean Air Campaign were all on hand to answer questions from CDC employees regarding responsible resource use, as were agency Goal Managers from responsible offices. Electric Vehicle Demonstrations were held throughout the day, and 1-mile Earth Walks were hosted at campuses nationwide, featuring sustainability trivia for participants.

Cafeteria Recycling was also launched in Roybal's Building 21 Cafeteria in November of 2014 in conjunction with America Recycles Day. The recycling program included detailed signs at each waste disposal bin with pictures and descriptions of what materials should be discarded, such as food waste, and what materials should be recycled, such as food containers and silverware.

CDC's sustainability website at www.cdc.gov/sustainability also received a facelift this year, and was one of the first pages to be converted to CDC's new web template. This resource provides external customers with information regarding CDC's work with sustainability.

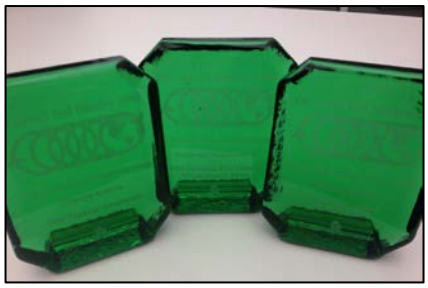
2014 AWARDS

CDC was recognized during 2014 with multiple awards and honorable mentions for its sustainability work, including:

Platinum Level Partner, Georgia Commute Options (formerly the Clean Air Campaign)

FY2013 HHS Green Champions Awards, HHS

- **Individual, Overall:** Katie Sobush
- **Small Group, Overall:** CDC and City of Atlanta Green Building Cooperation
- **Change Agents:** CDC Adam B. Arthur Virtual Platform Initiative
- **Electronic Stewardship:** CDC/ITSO
- **Good Neighbor Award:** Katie Sobush
- **Sustainable Acquisitions:** CDC Chamblee Building 107 Acquisition
- **Water Use Efficiency:** Building 18 Autoclave Upgrade



Multiple groups and individuals from CDC received HHS Green Champions Awards, made of recycled glass.

FY2013 HHS Green Champions Honorable Mentions, HHS

- **Waste Management**: CDC Furniture Reuse Program; Chamblee Building 107 Construction Recycling
- **Change Agents**: CDC DSNS Telework Program
- **Energy/Fleet Management**: CDC B17 HVAC Modification
- **Environmental Stewardship**: Furniture Reuse Program
- **Environmental Stewardship**: Building 107 Construction Recycling
- **Sustainable Acquisition**: Lawrenceville Campus Power Pole Replacement, Repurposing and Recycling
- **Good Neighbor Award**: CDC Community Garden

CDC Honor Awards, CDC

- **Excellence in Environmental Sustainability:** Caryn Kim, NCHHSTP, Resource Management and Waste Diversion
- **Excellence in Workforce Wellness**: National Center on Birth Defects and Developmental Disabilities, Healthiest CIO Challenge

An HHS Green Champions Awards Ceremony at CDC's Roybal Campus in June of 2014, recognizing those groups and individuals who had received awards and honorable mentions in both the FY2014 and FY2013 awards cycles.

Pictured (L-R) Genevieve Hansen (HHS), Suzanne Lanasa (CDC), Joe Henderson (CDC Director of the Office of Safety, Security and Asset Management), Liz York (CDC Chief Sustainability Officer/Associate Director of Quality and Sustainability), Lauren Dufort (CDC), Sherri Berger (CDC Chief Operation Officer), Caryn Womack (CDC)

STRATEGIC PLANNING IN 2015

CDC is making great strides toward the achievement of each of its goals and will continue to work with leadership and responsible offices at the Agency to target opportunities for improvement and progress.

2015 will see the expansion of multiple sustainability projects and programs at the Agency, including recycling pilot programs, the potential addition of on-site renewables, and a continued focus on resource consumption reduction.

The Quality and Sustainability Office (QSO) will continue to work closely with all Goal Managers, focusing significant efforts on goals that have been scored as “yellow” or “red” on the OMB/HHS Sustainability Scorecards.

In regards to Climate Change Adaptation, CDC is proactively working to assess its operations and facilities nationwide to identify risks presented by future climate change events. Using Federal guidance, CDC will categorize the risks and vulnerabilities posed by climate change, identify agency stakeholders and begin the necessary evaluation to manage both its short and long term effects on the agency’s mission and operations.

www.CDC.gov/Sustainability

Follow us on Twitter
@CDCGreenHealthy

CONTACT US AT:

gggh@cdc.gov
(404) 639-1718

Quality and Sustainability Office
Centers for Disease Control and Prevention
1600 Clifton Rd NE
MS-A22
Atlanta, GA 30333